

What is claimed is:

1. An in-wheel motor system having a hollow direct drive motor which is provided in a wheel and whose stator side is supported to a part around the wheel of a vehicle by elastic bodies and/or an attenuation mechanism, wherein

a motor rotor and a wheel or a hub are interconnected by a coupling mechanism which comprises two hollow disk-like plates having a plurality of grooves formed on their opposed surfaces in the circumferential direction at an angle of 45° from the radial direction of the plates and extending in directions orthogonal to each other, small balls sandwiched between the grooves in such a manner that they can slide, an intermediate plate interposed between the hollow disk-like plates and having guide holes for guiding the small balls in a direction orthogonal to the radial direction of the plates.

2. The in-wheel motor system according to claim 1 which comprises an elastic annular dust boot for storing a slide mechanism having the above small steels, grooves and guide holes.